3184 Summit Street Columbus, Ohio 43202

Ohio Race Walker



VOLUME XXIX, NUMBER 10

COLUMBUS, OHIO

DECEMBER 1993

Matthews tops 1 Hour mark

Walking at the Foothill College track on November 14, Jonathan Matthews bettered the U.S. 1 Hour record of 14,016 meters set by Allen James in 1991. The results show him going 34 laps plus 1244 feet on a 440 yard track, which is a poor way to report it--it makes me do some calculation. I find that to be 8 miles 1294 yards (that's costing him two feet, but I think the proper measurement is to the yard or meter), which is 14,058 meters. Jonathan passed 5 Km in 21:26 and 10 in 42:54. Results of the race (I've translated all the reported laps and feet to miles and yards): 1. Jonathna Matthews 8 miles 1294 yds 2. Jim Lenschau 7 mi 1015 (24:36, 49:14) 3. Joe Sheppard 6 mi 1634 (26:34, 53:42) 4. Therese Iknoian 6 mi 1502 (26:28, 54:11) 5. Kirk DeFord 6 mi 931 6. Bryan Winter 6 mi 399 7. David Dorinson 6 mi 387 8. Jennifer Granucci 6 mi 380 9. Bill Moremen 6 mi 247 (24 finishers)

Other results:

Topsfield Foliage 2.85 mile, Topsfield, Mass., Oct. 17--1. Bob Ullman 25:02 2. Bob Aucoin 26:27 3. Ken Mattsson 26:58 New England 10 Km Champpionship, Concord, Mass., Nov. 14--1. Michael Korol 52:10 2. Bob Ullman (45-49) 56:22 3. Joe Light (45-59 58:16 4. Justin Kuo 58:17 5. Stephen Donald 60:47 6. Tom Knatt (50-54) 61:27 (14 finishers) Women: 1. Meg Ferguson (44-44) 61:32 2. Joanne Dow 62:08 (15 finishers) 5 Km, New York City, November 28--1. Michael Korol 23:50 2. Khang Vo 23:56 3. Sean Albert 25:21 4. Bob Gottlieb 25:39 5. Ron Dupre (41) 30:10 (33 finishers) 10 Km, Atlantic City, Sept. 16--1. Ray Funkhouser (40-44) 47:05 2. John SOucheck 54:23 3. Dave Romansky (55-59) 56:19 4. Geri-Lynn Buckholz 56:39 5. Marcus Kantz (45-49) 58:16 6. Thomas Zdrojewski (50-54) 58:41 7. Pat Weir (40-44) 59:02 8. Bob Mimm (65-59) 60:32 9. Denise Romansky 61:59 (15 finishers) Niagara Association 15 Km, Grand Island, N.Y., Nov. 13--1. Dave Lawrence 1:21:19 2. Ron Laird (55) 1:29:50 3. Marilyn Chute (48) (Can.) 1:32:38 4. Bob Lubelski (50) 1:32:58 5. Daryl Ann Kidder (42) 1:33:01 (10 finishers) 3 Mile, Fairview, Penn., Oct. 24--1. Dave Lawrence 25:56 2. Rob Sontheimer 27:37 3. Bob Sontheimer Jr. (49) 27:45 4. Bob Lubelski 27:51 5. Jerry Prylinski (58) 28:38 6. April Capwill (42) 28:43 7. Daryl Ann Kidder 28:51 8. James Mesick 29:00 9. Timothy Makatura 29:11 10. Gregory Lemke 29:30 11. Adam Sontheimer 29:43 12. Cheryl Mann 29:45 14. Greg Wittig (59) 29:48 14. Tom Masterson (53) 29:49 15. Robert Przybylak 29:54 5 Km, Williamsburg, Virginia, Nov. 20-

SECOND CLASS POSTAGE PAID AT COLUMBUS, OHIO

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1. George Fenigsohn (46) 26:20 2. Dennis Hughes 27:01 3. Allyn Evans (56) 29:49 Women: 1. Mary Gibbons 27:09 1 Hour, Durham, N.C., Dec. 11--1. Curt Clausen 12,035 meters (49:55 at 10 Km) 2. Alvia Gaskill 10,479 3. Jerry Parrish (43) 10,326 4. Andy Briggs (62) 9,552 5. Ken Long (66) 9,319 5 Km, Orlando, Florida, Nov. 20-1. Steve Christlieb (40-49) 29:18 5 Km, Orlando, Nov. 25--1. Edgardo Rodriquez 24:46 2. Burns Hovey 26:41 3. Steve Christlieb 27:54 4. Steve Feith (40-49) 5. Doug Ruska (40-49) 29:23 6. Ken Cutler 29:59 Women--1. Linda Binge 31:56 5 Km, New Orleans, Oct. 23--1. Ed Whiteman (54) 25:28 2. Nolan Gouguet (9) 30:26 3. Tom Marhevko (43) 31:32 4. Debbie Marhevko (42) 31:36 10 Km, Gretna, Louisiana, Nov.21--1. Ed Whiteman 52:41 Women: 1. Becky COmeaux 59:14 Half-Marathon, Waggaman, Louisiana, Nov. 7--1. Sidney Holmes 2;09:55 2. Becky Comeaux 2:13:17 3. Sharon Lewis 2:13:18 3 Km, Naperville, Ill., Oct. 2--1. Augie Hirt (42) 13:57 2. Danny Vogel 14:35 3. Don Mowles (50) 14:56 4. Franklin Brown (50) 16:48 5. Jonathan Udesky 17:07 (13 finishers) Women: 1. Lynn Tracy (41) 16:58 2. Diane Graham-Henry (47) 17:11 3. Terri Krentz 17:16 4. Joyce Decker (59) 17:41 (23 finishers) 1 Hour, Rock Island, Ill., Sept. 11-1. Dean Easterlund (40) 10,626 meters Women: 1. Rachel Norton (55) 9080 2. Barb Welsch (51) 9080 1 Hour, Glenview, Ill., Sept. 26: Women--1. Diane Graham-Henry (47) 9621 m. Men--1. Danny Vogel 11,399 2. Jonathan Udesky 9638 5 Km, Elk Grove Village, Ill., Oct. 10-1. Danny Vogel 26:06 2. Jonathan Udesky 30:40 Women: 1. Lisa Sonntag 26:06 2. Tammy Vinar 28:17 3. Terri Krentz 30:51 10 Km, Houston, Oct. 24--1. Ivo Majetic 49:49 2. Cheryl Rellinger 49:51 3. Jay Byers 55:05 4. Bob Watson 55:42 5. John Knifton 56:54 6. Neal Picken 59:40. . . 8. John Stowers (65) 63:45 3.3 Miles, Houston, Dec. 12--1. Cheryl Rellinger 27:45 2. Lisa Chumbley 29:34 3. Bob Watson 29:45 4. Don Lindsay 29:48 5 Km, Austin, Texas, Dec. 4-1. Robert Rhode 25:43 2. Richard Letsinger 26:40 3. Bob Watson 27:42 4. Heidi Epp 28:14 5. Zbigniew Gawron 29:55 New Mexico State 10 Km, Albuquerque, Oct. 10--1. Vincent Sheehan 49:06 2. Theron Kissinger 54:05 3. Steve Petrakis (43) 54:32 4. Ellen Roche 57:17 5. Winston Crandall (53) 57:32 6. Jackie Kerby-Moore 59:43 7. Pat Rudeen 59:54 8. Arthur Fuldauer (42) 61:32 (17 finishers) 5 Km, Albuquerque, Oct. 10--1. Kathy Jo Lovell 28:52 2. Laurie Starr 29:24 3. Steven Moodie (45) 30:07 (7 finishers) 1 Hour, Santa Monica, Cal., Dec. 11--1. Victoria Herazo 13,044 meters (22:40, 46:06 2. Larry Walker 12,276 (48:51) 3. Carl Acosta 10,630 4. Richard Oliver 10,425 5. Steve Leitner 10,264 6. Jolene Steigerwalt 10,095 7. Lelise Folse 9,634 1 Hour, S.F. area, Nov. 13--1. Jack Bray 7 miles 88 yds 2. John Schulz 6 mile 890 3. Amir Garrison 6 ml 385 1 Hour, Nov. 21--1. John Schulz 6 miles 1156 2. Amlr Garrison 6 miles 559 3. Virginia Fong 5 miles 1755 10 Km, Folsom, Cal., Dec. 11--1. Kirk DeFord 57:57 2, Larry Green 58:52 3. Sally Focacci 59:18 (16 finishers) Half Marathon, Carmichael, Cal., Dec. 5--1. Barney Jones 2:19; 2. Teri Brothers 2:20 3. Charles Woods 2:23 4. Vicki Thayer 2:23 (12 finihsers) 5 Km, Seattle, Nov. 13--1. Stan Chraminski 26:20 2. Bob Novak 27:00 1 Hour, Seattle, Nov. 20--1. Glenn Tachiyama 11,683 meters (51:15 at 10 Km) 2. Stan Chraminski (46) 11,406 3. Bob novak (44) 11,134 4. Lew Jones (48) 10,316 5. Bob Huppe (44) 10,183

6. Claude Wrathall (59) 9,748 Women: 1. Bev LaVeck (57) 10,282 2. Sarah Klaudt 9,504 5 Km, Seattle, Ced. 11--1. Bob Novak 26:18 2. Lew Jones 28:20 3. Charlie Corder 28:29 4. Bev LaVeck 28:34 5. Steve Fredrickson 29:27 5 Km, Seattle, Dec. 18--1. Stan Chramlinski 25:50 2. Bob novak 26:09 3. Lew Jones 28:07 4. Ann Tuberg 28:07 5. Charlie Corder 28:42 6. Bev LaVeck 29:01 7. Claude Wrathall 29:55 Honolulu Marathon, Nov. 12--1. Glen Tachlyama 4:01:13 2. Eugene Kitts (46) 4:07:32 3. Bryan Winter 4:57:57

And, from other lands (some quite late, but I just got them): Russian Championship and Open 50 Km, Tscheboksary, June 5--1. Jesus Garcia, Spain 3:53:23 2. Sergey Korepanov, Kaz. 3:55:32 3. German Skurygin 3:56:19 4. Valerly Spitsyn 3:59:12 5. Wyatasch Smirov 4:01:54 6. Voyevodin 4:04:44 Russian 20 Km Championship, same place--1. Wladimir Andreyev 1:20:55 2. Grigoriy Kornev 1:20:55 3. Andrei Makarov 1:21:33 4. Oleg Troshin 1:22:17 5. Orlov 1:23:01 6. Lyubomirov 1:23:21 7. Markov 1:23:41 8. Gordeyev 1:23:51 Russian Women's 10 Km Championship, same place--1. Yelena Arshintseva 43:11 2. Yelena Saiko 43:36 3. Ramasarova 43:58 4. Makarova 44:04 5. Grusinova 44:18 6. Fessenko 44:19 7. Korolyova 44:57 8. Odschilya 45:00 East Asian Games, Shanghai, May 13-16: 20 Km--1. Chen Shaoguo, China 1:21:29 2. Li Mingcal, China 1:22:18 3. Takuschima Tsutomu, Japan 1:22:40 Women's 10 Km--1. Li Chunxiu, China 44:01 2. Cui Yingzui 46:09 3. Sato Yuko, Japan 46:30 Australian 50 Km Championship, Hawkesbury, July 10--1. Michael Harvey 3:57:20 2. D. Vojcik 4:01:46 50 Km, Prerov, Czech., April 25--1. M. Holusa 3:49:48 European Junior Championships, San Sebastian, Spain, July 29-30: Women's 5 Km--1. Susan Feltor, Portugal 21:21:80 2. Natalia Trofinova, Rus. 21:40 3. Irina Stankine, Rus. 21:50 4. Maria Vasco, Spain 22:41 Men's 10 Km--1. Michele Didoni, Italy 40:04.62 2. Dmitry Esipchuk, Rus. 40:27 3. Heiko Valentin, Ger. 40:38 4. Evgeny Shamaliuk, Rus. 40:56 5. Cesar Rodriquez, Spain 41:04 6. Mike Trautmann, Ger. 41:21 7. Cebastiano Catania, Italy 42:01 8. Tobias Persson, Sweden 42:23 Chinese Champpionships, Shenzhen: Women's 10 Km road, Feb. 18--1. Wang Yan 42:26 2. Gao Hongblao 42:32 3. Long Yuwen 42:44 4. Li Yuxin 42:45 5. Liu Hongyu 42:47 6. Zhang Quinghua 42:57 7. Song Lijuan 43:11 8. Sun Yan 43:30 9. Tang Yinghua 43:47 10. Cul Yingzi 43:50 Men's 20 Km, Feb. 18--1. Li Mingcai 1:21:36 2. Bo Lingtang 1:21:54 3. Sun Ziaoguang 1:21:55 4. Mao Xinyuan 1:21:59 5. Zhou Guangwen 1:22:01 6. Zhou Youngsheng 1:22:07 7. Hu Zhenrong 1:22:19 8. Li Zewen 1:22:30 9. Chen Shaoguo 1:22:34 10. Zhao Yongsheng 1:22:41 11. Tian Niantang 1:23:01 12. Wang Libin 1:23:04 Women's 10 Km (track), Feb. 21--1. Wang Yan 43:01 2. Gao Hongbiao 43:40 3. Liu Hongyu 43:50 4. Zhu Ziaolan 43:52 5. Cui Yingzi 44:10 6. Long Yuwen 44:12 7. Li Yuxin 44:14 8. Sun Yan 44:15 9. Jin Bingjie 44:28 10. Zhang Quinghua 45:01 Men's 50 Km, Feb. 21--1. Chen Shaoguo 3:59:36 2. Ll Mingcal 3:59:40 3. Zhal Wanpo 4:01:51 4. Jin Guohong 4:02:12 5. Mao Xinyuan 4:02:22 6. Zhou Yongsheng 4:02:28 7. Jiao Baozhong 4:02:35 8. Ren Yan 4:03:51 9. Llu Zlaochum 4:05:10 10. Llu Gang 4:05:15 11. Xu Gonfxian 4;05:27 12. Zu Wenquan 4:05:29 13. Gui Zhixing 4:06:28 14. Li Baojin 4:07:56 15. Han Wei 4:08:21 Women's 10 Km (track), Brunflo, Swed., July 18--1. 42:59 2. Madelein Svensson 43:06 Spanish 20 Km Championship, GAandia, July 2--1. Valentin Massana 1:25:36 2. Daniel Plaza 1:25:43 Women's 5 Km (track), Mikkeli, Fin. Aug. 1--1. Sari Essayah 20:38.65 20 Km, Banska Bystrica, Czech., July 7--1. Igor Kollar 1:21:10 2. Pavol Blazek 1:21:54 2. Zahoncik 1:22:43 4. Repasky 1:23:21 5. Bosko 1:23:29 South American 20 Km Championship, Lima, Jauly 2--1. J. Perez, Ecuador

1:24:03 2. Querebin Moreno, Col. 1:24:50 French 50 Km Championship, Neuilly-s-Marne, Sept. 24--1. Thierry Toutain 3:47:38 2. rene Piller 3:52:44 3. Alain Lemercier 3:55:44 4. Kieffer 4:02:11 5. Caudron 4:05:52 6. Causin 4:09:05 20 Km, Balassagyarmat, Hung. Sept. 19--1. Dudas 1:23:05 2. Zahoncik, Slov. 1:23:38 3. Malik, Slov. 1:24:54 20 Km, Beijing, China, Sept. 8-1. Chen Shaoguo 1:19:43 2. Bu Lingtang 1:19:49 3. LI Mingcai 1:20:00 4. Tan Mingjun 1:20:41 5. Mao Xinyuan 1:20:54 6. Zhou Yongsheng 1:21:22 7. Shen Weihul 1:21:45 8. Sun Xaoguang 1:22:16 9. Zhou Zhaowen 1:22:23 10. Wang Jun 1:22:51 Women's 10 Km, Beijing, Sept. 8--1. Li Chunxiu 41:48 2. Go Hongbiao 41:57 3. Wang Yan 42:46 4. Gu Yan 42:50 5. Liu Hungyu 43:01 6. Song Lijuan 43:07 7. Fan Xiaoling 43:10 8. Sun Yan 43:28 9. Wei Linkun 43:34 10. Tang Yinghua 44:20 (20 under 47:00) 50 Km, Beijing, Sept. 12--1. Li Mingcai 3:49:17 2. Jin Guohong 3:55:08 3. Zhou Yongsheng 3:58:07 4. Xu Songxlan 4:00:07 5. Sun Xiaoguang 4:01:18 6. Zhao Yongsheng 4:02:41 7. Ren Yan 4:05:30 8. Bu Lingtang 4:08:57

HAPPY RACING NEW YEAR

Sat. Jan. 8	10 Km, Long Branch, N.J., 11:02 am (A)
Sun. Jan. 9	1 Mile Women, 2 Mile Men, Hanover, N.H. (I)
	9 Km, New Orleans, 9 am (M)
	Indoor 2 Mile, Arlington, Virginia, 8:30 am (J)
Sat. Jan 15	Frostbite 1 Mile, Seattle, 4:25 pm (C)
Sun. Jan 16	Indoor Women's 1500 meter (G)
	1 Mile, Men and Women, Providence, R.I. (I)
	20 Km, Palo Alto, Cal., 8:30 am (R)
	5 and 10 Km, Honolulu, 7 am (K)
Sat. Jan. 22	Indoor 3 Km, Men and Women, Boston (I)
	5 Mile, Long Branch, N.J., 11:02 am (A)
	5 Km, Coconut Creek, Florida, 8 am (Q)
	Marathon, Half-Marathon, and 5 Km, New Orleans, 8 am (M)
Sun. Jan. 23	Indoor 2 Mile, Arlington, Virginia, 8:30 am (J)
Sat. jan. 29	5 Km and 1 Mile, Metairie, Louisiana, 9 am (M)
Sun. Jan. 30	Indoor 2 Mile, Arlington, Virginia, 8:30 am (J)
	Indoor 3 Km, Men and Women, Boston (I)
Sat. Feb. 5	5 Km, Long Branch, N.J., 11:02 am (C)
	10 Km, Wilsonville, Oregon, 10 am (X)
Sun. Feb. 6	Indoor 3 Km, Men and Women, Boston (I)
222 - 165 - 17 - 515	5 and 10 Km, Metairie, Louisiana, 8 am (M)
Sat. Feb. 12	Frostbite 1 Mile, Seattle, 4:35 pm (C)
MANAGEMENT TO THE PARTY OF THE	10 Km Run-Walk (run first 6 Km), Long Branch, N.J., 11 am (C)
Sat. Feb. 19	5 and 10 Km, Washington, D.C., 8:30 am (J) (The schedule sent to
	me says Sat., Feb. 21, but there is no such date, so I have made
	an assumption.)
	National 15 Km CHampionship, New Orleans, 8 am (D)
Sun. Feb. 20	1 Mile and 5 Km, New Orleans, 8 am (M)
NEW C 1995 AT 1951 NO	Indoor 2 Mile, Arlington, Virginia, 8:30 am (J)
Sat. Feb. 26	2 Mile and 10 Km, Slidell, Louisiana, 8 am (M)

Contacts

A--Elliott Denman, 28 N. Locust, West Long Branch, NY 07764 B--Elaine Ward, 1000 San Pasqual #35, Pasadena, CA 91106 C--Bev LaVeck, 6633 N.E. Windemere Road, Seattle, WA 98115 D--Dottie Clemmer, 830 Foucher St., New Orleans, LA 70115 (504-897-6195) E--Frank Alongi, 26530 Woodshire, Dearborn Hts., MI 48127 F--Kalamazoo Valley Walkers, P.O. Box 19414, Kalamazoo, MI 49009 G--Grand Prix, 4545, Avenue Pierre-de-Courbetin, C.P. 1000, Succursale M, Montreal, Quebec, Canada H1V 3R2 H--Bob Carlson, 2261 Glencoe St., Denver, CO 80207 I--Steve Valtones, c/o NEAC, P.O. Box 1905, Brookline, MA 02146 J--Potomac Valley Walkers, 2305 S. Buchanan St., Arlington, VA 22206 K--Barbara Steffens, 1521 Punahou St., #1002, Honolulu, HI 96822 L--New Mexico Racewalkers, 2301 El Nido Ct., Albuquerque, NM 87104 M--NOTC, P.O. Box 52003, New Orleans, LA 70152 N--Jake Jacobson, WCA, 445 East 86th St., 3C, New York, NY 10028 O--Park Racewalkers, USA, 320 East 83rd St., Box 18, New York, NY 10028 P--Marin Racewalkers, P.O. Box 21, Kentfield, CA 94914 Q--Bob Fine, 3250 Lakeview Blvd., Delray Beach, FL 33445 R--Therese Iknolan, 544 Columbia Ave., San Jose, CA 95126

S--Kansas City Walkers, 5615 Wornell Road, Kansas City, MO 64113 T--Metropolitan Racewalkers, 2500 Johnson Ave., Bronx, NY 10463

U--Columbia TC, P.O. Box 1872, Columbia, MO 65205

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BB-Ron Daniel, 1289 Balboa Court, Apt. 149, Sunnydale, CA 94086

CC-Sal Corrallo, 3466 Roberts Lane N., Arlington, VA 22207

FROM HEEL TO TOE

Had planned to run the Annual World Rankings in this issue, but with all the comments we have on recent judging proposals, will hold off until January and run the U.S. rankings at the same time. That leaves more assurance that all results are in and gives you something to await with balted breath. . . Dave McGovern's first racewalking camp of 1994 will be held as usual at Gary Null's Healing Springs Ranch in Texas from Wednesday, April 13 through Sunday, April 17. Dave will be assisted by other U.S. National Team members and invites walkers of all ages. These camps utilize Olympic Training Center and Eastern European coaching methods. The camp fee of \$585 includes lodging and meals. For further information, contact Dave at 795 Madison Avenue, Charlottesville, VA 22903, Phone 817-437-2204. . .Mark Fenton will conduct an advanced racewalking weekend in Oglethorpe, Georgia on Jan. 29-30. Contact the Walking Club of Georgia, P.O. Box 645, Stone Mountain, GA 30086 for more information. . .THe Potomac Valley Track Club will

have Winter Racewalk Clinics for six Saturdays (Jan. 8 through Feb. 12) starting at 8 am at Tysons Corner. Contact Valerie Meyer, 2305 S. Buchanan St., Arlington, VA 22206 for more info. . . Captain ROn ZInn Awards for 1993 were awarded to racewalkers Teresa Vaill, Allen James, and Jonathan Matthews, to Ron Daniel as the year's top contributor to the sport, and to the Potomac Valley USATF Association in Washington. D.C. as the top association. . Anyone wishing a copy of the 1993 Regional/National 5 Km ladder, please send \$1.00 cash or a check made payable to USATF RW Postal, to Donna Stanton, 18020 Gramercy Place, Torrance, CA 90504. Awards will be sent to winners in places 1 to 3, male and female, in each age division, and certificates to positions 4 to 8. At the Annual Convention in Las Vegas, approval was given to the offering of 10 and 20 Km Postal Regional/National Ladders as well as the successful 5 Km Ladder. More than 500 walkers participatead in the 1993 5 Km Ladder. The 1994 Ladders will continue to be published in the June 15, September 15, and December 30 issues of "Racewalking in 4-Regions", which are mailed to Association Chairs. The conventina also approved offering subscriptions to "Racewalking in 4-Regions" to Individual competitors who would like to recevie the Ladders directly at a fee of \$7.00. The top of the subscription form explains all the requirements and procedures for the Ladder as well as the Age Group qualifications for participating in the Ladders. Subscriptions will help fund Ladders and are, therefore, very welcome. In 1994, all competitors who qualify will be ranked on the ladders. However, only subscribers to the newsletter wil be eligible for awards, raffles, and cash prizes. Subscriptions forms can be obtained from Donna, from Elaine Ward, 1000 San Pasqual #35, Pasadaena, CA 91106, from Association Chairs, and from race directors. . .Russian's Alina Ivanova, 1991 World 10 Km Racewalking Champion, made her marathon debut with and eighth place finish in the TOkyo Internatinal Marathon, finishing in 2:35:16. Ivanova was disqualified in the Barcelone Olympic 10 Km. The following letter from Steve Vaitones, comments on Elliot Denman's comments (Nov. issue) on Steve's comments (Oct. issue) on our Junior walkers "going for it."

Elliott Denman's comments on disqualifications presupposes that all disqualifications are the result of poor technique. I don't believe that is necessarily the case. At the Alongi races, our younger walkers were advancing to new ground, boldly going where few juniors (sub 45:00) and intermediates (sub 1:30:00) have gone before (apologies to Star Trek).

To use a few analogies with several other events: A hammer thrower advances from a three turn to four turn throw. He (or she) may not have the strength or kinesthetic sense developed for this next level of thrower without sector fouls or touching outside the circle. A high jumper with a personal best of 6'9" achieved several times may go from that clearance right to attempts at a 7 foot clearance in their final meet of the season simply to gain experience at approaching that formidable barrier. His technique may be excellent, but pushing to the limit they may simply not be strong enough yet. An intermediate hurdler moving to a different stride pattern may clobber some hurdles and finish well off the pace but they're looking to feel the change in a real competition.

Another way to look at this is one that was brought up at last summer's training camp in Colorado Springs. Take a walker attempting to break the World "A Standard" of 1:24:00. which is back-to-back 42:00 10K's. The athlete must have a bit of slack between this 42:00 and their PR. For sake of argument, say the walker slows about 10 seconds per mile when going from a 10K PR time to this attempt at 1:24:00, looking at a 10K PR of about 41:00. That in turn is a pair of 20:30's. But the athlete's 5K PR must be better (say 5 second/mile slower). This brings us to a 5K time of under 20:15, and only 6 US athletes have ever broken 20:15 for 5K, under any conditions road or track, and usually that has been with specific

5K training. That's not been a big pool of walkers even capable of giving 1:24:00 a decent attempt.

At the Alongi race, the fatigue factor at the end was more of a problem than bad basic technique, or they would have been gone a lot earlier than the final kilometer lap. Our young walkers may not be quite ready for 20:15, or even 1:30:00, but at least now they know what the pace feels like, they put their best attempt on the line in their last race of a long season with nothing more at stake than a personal best, and they are now wiser and better athletes for it. Sure, they could have safely brought their best down a second or two. but that doesn't win medals and doesn't qualify for World Juniors, which is what the critical US racewalk community continually complains about. You can't have it both ways, folks. Carry on, guys!



DECEMBER 1993

1994 SCHEDULE OF RACE WALK CHAMPIONSHIPS AND MAJOR INTERNATIONAL RACES

DATE	EVENT, LOCATION, DIVISIONS	CONTACT
FEB 19	US 15K CHAMPIONSHIPS CITY PARK NEW ORLEANS, LA (JM,SM/W,MM/W)	DOTTIE CLEMMER 830 FOUCHER ST NEW ORLEANS, LA 70115 504-897-6195 504-899-4902
MAR 5	USA/MOBIL INDOOR CHAMPIONSHIPS GEORGIA DOME ATLANTA, GA SM 5000m, SW 3000m	USA/MOBIL CHAMPIONSHIPS USA TRACK & FIELD P. O. BOX 120 INDIANAPOLIS, IN 46206-0120 317-261-0500
MAR 13	US 50K CHAMPIONSHIP PAN AM CUP TRIAL BAYLANDS PALO ALTO, CA SM	RON DANIEL 1289 BALBOA COURT #149 SUNNYVALE, CA 94086 408-743-7228 B 415-964-3580 H
MAR 25-27	US MASTERS INDOOR T & F CHAMPS COLUMBIA, MO MM, MW 3000m	BOB MCGUIRE ATHLETIC DEPT HEARNS, MO 65205 314-882-6501 phone 314-882-4720 fax
MAR 27	NATL INVITATIONAL RACEWALKS WASHINGTON, DC M/W 20K/10K 3K	SAL CORRALLO 3466 ROBERTS LANE NORTH ARLINGTON, VA 22207 703-243-1290 H
1ay 22	US 10K/20K/25K CHAMPIONSHIPS ALBANY, NY JW 10K;SW,MW,JM 20K;SM,MM 25K	BOB RYAN 8 SPRUCE ST LAKE PLACID, NY 12946
ev11dec93		518-523-2240 H

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DECEMBER 1993

JUN 14-18	USA/MOBIL OUTDOOR CHAMPIONSHIPS UNIV OF TENNESSEE KNOXVILLE, TN SM 20K, SW 10K **QUALIF. STDS**	GEORGE WATTS ATH. DEPT. BOX 15016 UNIV. OF TENNESSEE KNOXVILLE, TN 37901 615-974-1265 B
JUN 26-27	US JUNIOR T&F CHAMPIONSHIPS TALLAHASSEE, FL JM 10K, JW 5K	TRACK OFFICE FLORIDA STATE UNIV. P O BOX 2195 TALLAHASSEE, FL 32370 904-644-3270 904-644-4845 FAX
JUL 8-10	US OLYMPIC FESTIVAL '94 SAINT LOUIS, MO SM 20K, 50K; SW 10K	DR. PHIL HENSON TRACK OFFICE, ASSEMBLY HALL INDIANA UNIV BLOOMINGTON, IN 47401 812-855-8584 B
JUL 16	US 10K CHAMPIONSHIPS NIAGARA FALLS, NY SM, MM	DAVID LAWRENCE 94 HARDING AVENUE KENMORE, NY 14217 716-875-6361 H 716-694-7683 B
JUL 20-24	WORLD JUNIOR CHAMPIONSHIPS Selection by Trials (US JR T&F MEET)	LISBON, PORTUGAL
JUL 28-31	JUNIOR OLYMPICS TRACK & FIELD GAINESVILLE, FL Various divisions, distances	
AUG 11-14	US MASTERS OUTDOOR T&F CHAMPS EUGENE, OR MM, MW 5K; MW 10K; MM 20K	CHAMPIONSHIPS ORG COMM P. O. BOX 10825 EUGENE, OR 97440 503-687-1989 phone 503-687-1016 fax
AUG 20	US 5K/3K CHAMPIONSHIPS ORONO, ME JM 5K tr; JW 3K tr	TOM EASTLER RR #1 BOX 1043 FARMINGTON, ME 04938 207-778-6703
SEP 11	US 40K CHAMPIONSHIPS FT. MONMOUTH, NJ SM, MM, MW	ELLIOTT DENMAN 28 NO. LOCUST AVENUE WEST LONG BRANCH NJ 07764 908-222-9080 OR, IF UNAVAILABLE: RAY FUNKHOUSER 908-341-7386
SEP 17	US 5K CHAMPIONSHIPS EASTMAN COMPLEX KINGSPORT, TN SM, SW	BOBBY BAKER 318 TWINHILL DR KINGSPORT, TN 37660 615-349-6406 H 615-229-4364 B

DECEMBER 1993

SEP 23-24 (FRI-SAT)	PAN-AM RACEWALKING CUP ATLANTA, GA	JULIA EMMONS 3097 E. SHADOWLAWN AVE., N.E. ATLANTA, GA 404-231-9064 B 404-364-0708 FAX
Oct. 1-2	ALONGI INTERNATIONAL R W CLASSIC DEARBORN HEIGHTS, MI SM, SW 3K, 5K, 10K, 20K	WOLVERINE PACERS ATH. CLUB ROSWELL BARRANCO 3235 MUSSON RD HOWELL, MI 48843-9507
OCT 9	US 1HR/2HR CHAMPIONSHIPS MIT TRACK, CAMBRIDGE, MA SW, JM, JW, MM, MW 1HR/SM 2HR	JUSTIN KUO 39 OAKLAND RD BROOKLINE MA 02146 617-731-9889 H 617-734-6322 N E WALKERS

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THE RUN ALARM

Not surprisingly, we have more comment than there will be room for on the Run-Alarm (see November ORW). The demonstration in Las VEgas came off and Jim Hanley reports he has it on videotape. Anyone wanting a copy can send him \$10 at P.O. Box 6744, Thousand Oaks, CA 91359 with their mailing address. In one of the letters below, Jonathan Matthews gives his impressions of the demo. First, here are some of the briefer comments:

Ron Laird: Looks as if we are in for some more contact controversy, but that is good because we need to sort it out before the IAAF does if for us with a swift boot to our butt. Bowman sure blew Dr. Furlong away with his reliability assessment. The thing seems like some sort of Mickey Mouse contraption that would further degrade our unique event. The heel on training and racing shoes is an old idea the English sort of insisted on way before I came into the game back in 1955. It helps one to stride out, thus achieving the class racewalking technique. Contact will still be lost, but aat least the walkers will look more like they are actually walking. I think you must still remember how we were told to put heels on our shoes when you came into the sport. (Ed. I also remember that Adidas actually made a racewalking shoe with a heel added in the mid -60s but it never became a production thing. I had one pair.)

Alan Wood: It is understandable that judges such as Bob Bowman are going to be defensive about the Run Alarm. So, we need to leand some objectivity to some of his comments.

- 1. He says thata lifting doesn't help a walker "necessarily". I bow to his superior technical knowledge, but it must do something, such as effortlessly lengthen the stride. Otherwise, why are runners one-third faster than us? He says, "Video studies often show the fastest walker to be the most legal." This is one of the many biased statistics in this world. The most skilled and experienced walker usually has learned good technique, while the less skilled/experience walker is more likely to be arratic and scrambling to keep up. The legal walker could go still faster if he lifted. Or did we just image it when, at the Mexico City Olympics, Golubnichiy, the faster walker into the stadium, had his lead sharply reduced by a blatently lifting Mexican. (Ed. But Golubnichiy was able to fespond with an acceleration of his own when he became aware of the threat.)
- Bowman zealously attacks the Run Alarm from every conceivable technical angle. There's just one problem with that. If we are to believe early trial reports, it works.

As in other fields of endeavor, traditionalists will deny, deny, deny that an alternative method has any validity.

Bowman does indirectly bring out a point re: security with the Run Alarm. It may be necessary for walkers to jog before the racae and activate their alarms to prove that they aren's disengaged or defective. There are always bugs with any new system, but we should at least give it full consideration and a long trial, starting with non-championship races, possibly using eye judging also as a backup/comparison.

Following are a letter from Elaine Ward in response to Bob Bowman's comments last month, and some very perceptive letters form Jonathan Matthews, Dave McGovern, and Martin Smith. Obviously, this is no simply problem and I am sure much more will be said.

December 9, 1993

Dear Editor:

Thank you for the extensive coverage you gave the Run-Alarm in your November issue of OR.

I would suggest that Bob Bowman's letters to me and to Dennis Furlong need to be read from the perspective that he was not informed as to the nature of the technology involved in the Run-Alarm. He, in effect, set up a straw man to beat down as he entertained the notion that radio frequencies and transmitters were involved. In fact, neither are involved.

I refer to page three of his letter to me dated November 22, 1993, which was written after the two letters you published.

"I don't think you understand the impossible situation of 300 such alarms in one race of 150 walkers such as a World Cup requiring 150 separate frequencies that won't interfere with each other!".....

..... "You don't have to see any demo to judge its usage potential. If you cannot properly analyze its circuitry, which I have done, you haven't seen much. I see no legitimate role for it in our sport."......

Again, the Run-Alarm does not use frequencies or transmitters. The Run-Alarm monitors on/off ground contact and communicates this information via the human body so that essentially the shoes "talk to each other" in a very private conversation. If Bob had come to the demonstration in Las Vegas by Dennis Furlong, and/or if he had not considered it "a waste of his time" to speak with Lee Danisch, the developmental engineer of the device, when I offered to bring him to the convention to meet him, he might have better understood the innovation involved.

Finally, I would suggest that Bob has not heard the last of the Run-Alarm.

Sincerely,

E1.wie

Hi Jack,

I was present at a demonstration of Dennis Furlong's "Run Alarm" device, which is designed to detect loss of contact during race walking. The demonstration took place at the USATF national convention in Las Vegas, last month. I would love for this device to work perfectly, since I feel that I would benefit from a more rigorous enforcement of the contact rule. Unfortunately, the prototypes that Dr. Furlong brought with him to the demonstration occasionally signaled loss of contact when continuous contact was present and occasionally failed to signal loss of contact when wearers (including Dr. Furlong) were actually jumping into the air, achieving dramatic contact loss. Of course, there were stretches when the devices worked as designed.

Allen James noted that the sensors in the toe of the shoe were placed in such a way that one could maintain contact while pushing off from mid-ball of the foot and yet fail to register contact at the toe sensor. This appeared to be why the device sometimes falsely signaled loss of contact.

Several people watching the demonstration wanted to buy the devices to use them as coaching tools. It was felt that they could help athletes to learn to discover the desired, fine-line point of minimal contact at which the race walking stride is legally fastest. None present said that they felt that the "Kun Alarm" was ready to be used to determine walkers' legality in races. The general consensus seemed to be that Furlong s attempt should receive moral support from the race walking leadership so that he could approach shoe companies about making some prototypes in which the Run Alarm would be integral (not sewed, wired, and glued to the exterior, as at present).

Durability and reliablity cannot be adequately tested with the present prototypes. Even during our brief demonstration, wires were pulled out of place, rendering the units inoperative. At present, the wire sensors at the toe and heel of the sole are held in place by a thin coating of Shoe Goo. It is doubtful whether they would survive more than a 5 kilomenter race on the roads.

This problem may be insurmontable. Durablity requirements would necessitate that shoe makers incorporate the Run Alarm wiring and sensors into the upper and sole during

manufacturing. And even if this difficult requiremnt is met, it may not be enough. In a single $50~\rm km$ race I have ground away the outsole of a new shoe in the toe region, through torque on pushoff and scuffing during the later stages. This is the same location where the toe-contact sensor is located.

So, I'm saddened to say that I feel that these limitations to the Run Alarm's design will keep it from being a practical improvement upon the current method of detecting compliance with race walking's contact rule. However, I encourage Dr. Furlong to continue to work on this, and to develop a durable and reliable prototype, size 11 and a half, and send it to me. If it survives my torture test, I'll let folks know.

As for the notion that a taller heel will make lifting dramatically easier to detect . . . I just don't get it. Again, I ferevently wish that this would be the case. Those small and light athletes who rev-up the RPM's so fast that loss of contact is difficult to see will still be able to do this -- it seems to me -- even with higher heels. I hope that race walking authorities will not grab at this as a quick and clean "solution" to race walking's PR problem without having definitive, experimental proof that higher heels actually deliver the benefits that some are already claiming for them. I'm afraid

that the main effect of higher heels would likely be sore shins from the stress imposed on them by greater range of motion and force acceleration.

Ian Whatley, who has conducted a preliminary study of the effect of adding additional heel elevation to walking shoes, has told me that he feels that athletes can quickly adapt to this shoe change with negligible change in their stride biomechanics. He has told me that has investigations have yet to develop any evidence that adding greater elevation to the heels makes it easier to detect lifting.

Since slow motion video has been the source of our public-relations problem, I feel that some teaming of "video-replay judges" working together on the course at each judging location with "unaided human eye" judges should be tried, and its effectiveness evaluated, in addition to the experimental options already mentioned.

But all of these options need to be further investigated, and none should be written into law without proof of their efficacy.

yours in walking MATTHEWS

Dear Jack;

Nobody asked me, but... Since the ORW continues to be our only true forum for open debate I thought I'd throw in my two cents on the new "shoe alarm" and the continuing lifting "problem." Bob Bowman's excellent response to the new device in last month's issue made a very strong case against this kind of technological solution on the grounds of impracticality, but I feel that such an approach is flawed philosophically as well. My first concern is that there seems to be a great deal of debate from without, but very few complaints from within the ranks of competitive racewalkers in regards to lifting. The legal concept of standing seems to apply. The athletes don't seem to be complaining much about the flight phases of their peers, so where's the problem? As a sometimes Internationalist in the sport, I'm just unbelievably impressed that some of my fellow competitors are able to walk 20 kilometers in 1:18 - 1:20. Flight phase or not, that's incredible athleticism, and I for one, don't have a problem with a few milliseconds of "air time" as long as the straightening rule is enforced.

Racewalking has existed under a cloud of controversy ever since its inclusion in the Olympic Games early in the century. Judging problems eventually forced the removal of the walks from the 1928 games—certainly an over-reactive solution to the problem, but no wiser than the supposed solutions we're seeing today in response to the same old problems. The adoption of standardized rules governing the "progression of steps" ultimately saved the event and added to its credibility—until the late 1950s. The emergence of new techniques first advanced by the Soviets at the 1956 Melbourne Olympics, and later, refinements by the Mexicans set the stage for the development of the fast, fluid technique that we see today on the International level.

Obviously, the intent of rules 190 and 191 is to create a distinction between racewalking and running. I believe that they do so, despite the fact that 99% of the competitors walking in any given race are off the ground at least part of the time. Aesthetically, however, there is still a huge difference between modern racewalk technique, and running. Also, because of the straightening rule, the walker's center of gravity is displaced directly out of phase to what one sees in a running gait. (The walker's c.g. is at its highest vertical displacement in the single support phase; the runner's c.g is at its lowest point at the same point of stride.) Also, while a runner springs off the ground by releasing energy stored in the quadriceps muscles, the racewalker must propel himself forward by driving back with the rear leg using the gluteal and hip musculature--the quadriceps remain relaxed at this point of the stride because of the straightened knee. The powerful drive of the hips may propel the walker forward forcefully enough to cause a momentary loss of contact, but there is still a very clear difference between fast racewalking and running. The straightening rule ensures that this difference exists--if rigidly enforced.

Unfortunately, the wording of the straightening rule makes enforcement of its intent somewhat difficult. Since athletes are only required to straighten in the vertical support phase, many walkers, including a good number of Internationalists have adopted a technique of landing with a very bent knee and (maybe) straightening at the vertical—Olympic Champion Daniel Plaza

comes to mind. The problem with this technique is that it allows the athlete to take advantage of the stored energy in the quadriceps muscles that the straightening rule intends to eliminate. In my mind, this is not true racewalking.

At great risk of further complicating the issue I'd be interested to hear what the readers think about a re-wording of the straightening rule to require straightening of the knee from the point of heel contact through the vertical support phase. Is this heresy when one reads so often about the need to eliminate the contact rule? On one hand I agree with this somewhat radical solution as well--if nobody is actually on the ground, then the rule should be reexamined. But I think that elimination of the "lifting" rule without strengthening the "creeping" rule is unwise and a threat to the integrity of the sport.

During the triple cast coverage of the 1992 Olympic walks, Frank Shorter mocked the sport, calling it "straight legged running." Maybe I'm crazy, but the way I see it, racewalking is a whole lot closer to straight legged running than it is to fast walking. (Maybe we ought to just change the name to reflect this fact and forget about the rules!). Seriously though, the sport has undeniably evolved over the years from an awkward herky-jerky "duckwalk" into a beautiful, fluid athletic event. But this evolution has occurred at the expense of an obsolete lifting rule. Perhaps it's time that we allow the rules catch up with the sport, rather than forcing the sport to regress to fit obsolete rules. If straightening on contact were required, racewalking would continue to be clearly distinguishable from running as long as the knees were straightened.

Racewalking does not have a public relations problem because racewalkers are lifting. We have a public relations problem because there is a lifting rule, and racewalkers are lifting. The general public will always have a hard time seeing the difference between walking and running if they're looking at the wrong things. A horse and a toad both have four legs, but they're very different animals. Walkers and runners both come off the ground, but they, too are very different animals. Unfortunately the press and the public still go crazy every time they get a picture of a walker off the ground. If walking was distinguished from running based on the actual difference between the sports—the straightening of the knee and the resulting differences in the motion of the body's center of gravity—we wouldn't have to be so paranoid of public perceptions.

In my mind, part of the beauty of racewalking is its simplicity. All you really need is a decent pair of shoes. If we ever get to the point where the IAAF tells us how thick our heels have to be or demands that we race with "shoe alarms" then I'm outta here. I don't believe anybody has all the answers yet, but I do know that using 1990s technology to enforce 1950s rules is the wrong approach. Any comments from the peanut gallery?

Adios & Merry Holidays

Dave McGovern

Dear Mr. Mortland:

The articles in your November 1993 issue concerning the new judging device have prompted me to write. Perhaps, this time, I will even send the letter.

I see a somewhat different set of problems with Dr. Furlong's "Run-Alarm" than those Bob Bowman mentioned. The first point that hits me as totally weird is that after devising a way to generate an electronic signal, the device, as described, gives an audible alarm to signal that a competitor is lifting, then provides a visual display, using a mechanical device or a lamp, to signal continuously after some number of lifting infractions. The judges or head judge must still observe and manually record this display. The device could easily be modified to send a telemetry signal each time the competitor passed a receiving station beside the course.

Ian McCombie may not mind an additional 90 grams, on each shoe, but he thinks the device will make him more competitive. I would be surprised if many other walkers agreed to the added weight on the shoe. It would seem sensible to move as much as possible of the device to a waist belt. Certainly the display and signalling components would be more easily observed with accuracy, if mounted just below the number on the walker's back, and any electronic components that could be placed on the torso, rather than the foot would find an environment less hostile to reliability.

of one or more "Run-Alarms?"

While I have suggested ways that, in my opinion, could improve the "Run-Alarm" system, I would not automatically become a wholehearted supporter of adopting its use, should these changes be made. Clearly, the changes I suggested address only two or three of Bowman's listed failure modes, and these only from the standpoint of reducing the harshness of the operating conditions.

The cost of the system is not discussed. If, because of cost, the system were used at only a few meets, racewalkers would not have a realistic opportunity to adjust to the different level of scrutiny.

In addition, adopting this device would have a major impact on the role of the judges (or at least the head judge), but this, too, is not discussed. Would the judges become slaves to the "Run-Alarm?" Could judges still give warnings for lifting not confirmed by the device? What happens to their current mandate each to use independent judgement? Do the judges become judges of bent knee only? Will judges become the "manual" backup system for the inevitable failures

Another striking thing in the articles is that David Powell and McCombie appear to believe that lifting provides a clear speed advantage in a race, while Bowman states that, "It is a myth." Bowman bolsters his claim by stating that video studies often show the fastest walker to be the most legal.

I submit that, if lifting does provide an advantage in a race, then a most likely outcome of the competitive dynamic is that the fastest walker will be the most legal. The fastest legal walker forces other competitors to their limits. In order to not lose contact with the leader, the less able walkers begin to lift, allowing them to keep up. (If the judges fail to intervene, the race becomes a lottery. The fastest legal walker can restore his or her advantage by going still faster (lifting), making the other competitors so obvious that the judges detect them.)

I believe, also, that Bowman's analogy of a racewalker lifting to a hurdler is inappropriate. For a hurdler, the hurdle clearing stride requires the hurdler to raise the center of gravity higher than the strides on the flat. To do so, the hurdler employs an increased vertical force and, consequently, a reduced forward thrust in the hurdle clearing takeoff. For a racewalker, the toe off seems indistinguishable between legal walking and lifting. Far from having greater vertical motion of the center of gravity than when walking legally, I believe that if we examine the motion of racewalkers who appear to have good style to the naked eye, but who are shown on video review to be lifting, we will find the opposite. This can occur, because lifting allows the contact of the advancing foot to be made with the leg more nearly vertical, so that the height of the center of gravity at heel contact is closer to that at vertical leg support than when walking legally. The real myth is that a lifting racewalker has greater vertical motion of the center of gravity than the same racewalker when progressing legally.

Still, if there is an alternate explanation of the video studies and despite a bad analogy, Bowman could yet be right about the central point concerning whether lifting gives an advantage. So what really occurs in competitive racewalking?

It seems to be accepted that most or, even, all top racewalkers lift, at least some of the time. The races with the most notoriety for being "flying circuses," that is, for lax judging and much lifting, tend to be among the fastest races. If lifting does not give an advantage in a race, why would this be so, and why would so many of the best athletes risk disqualification to employ it? Are we to believe that the best athletes to take up racewalking can not be trained in the proper technique?

From Ian Whatley's letter in the January, 1993 ORW, up to 50 milliseconds flight phase might escape detection. That amounts to 15

to 20 percent of the time off the ground. By this measure, I would say lifting is hard to detect. This indicates that racewalkers lifting are doing nothing with their muscles that appears different when legal.

I do not question the ability of racewalkers to demonstrate completely legal style at higher speeds than the pace of even their 5 km bests. But for what distance can they maintain such speeds legally? Most racewalking is aerobic, at least in the sense that oxygen uptake rate capacity is a limiting factor in performance in races. If a racewalker can find a way to improve efficiency, that is, to reduce oxygen uptake rate requirements at racing speed, then that walker will be faster over all racing distances where he or she can employ the more efficient technique. "Lifting" is precisely the available technique for such efficiency improvement (given a walker with good technique).

I have chosen two of many possible ways to evaluate whether lifting offers an advantage. One simple way is to look at the energy requirement to move the trailing leg from toe off to its next foot contact. A second way is to consider the changes in gravitational potential energy and kinetic energy. These two energy saving mechanisms are independent. Lifting always gives the benefit of "free distance," but the change in the potential energy-kinetic energy oscillation is more technique dependent.

The leg recovery in racewalking is faster than the leg would swing as a pendulum, so it requires muscular energy. We can observe the minimum recovery distance the foot must move with respect to the body's center of gravity is equal to the stride length for legal walking. If a walker lifts at the same stride length, some of the stride length becomes "free distance." That is, this minimum recovery distance becomes less than the stride length and the recovering leg can move more slowly. With slower recovery leg speed allowing the walker to use smaller muscle contraction forces, the walker, moving at the same speed over the ground, has reduced the power requirement for the recovering leg (with no countervailing power increase requirements). Because the power requirement is lower, the walker can maintain the speed over a longer distance, improving racing times.

Viewed alternatively, in walking, some of the kinetic energy is used after each foot contact to raise the center of gravity (c.g.) to the point where the support leg is vertical. This gravitational potential energy is returned to kinetic energy as the c.g. falls to the next foot contact. The most efficient possible motion would require the walker to maintain a perfectly constant height of the c.g., and, thus, constant horizontal speed. (The "'modern' quick stepping technique" attempts to approach this ideal, by having foot contact occur with the leading leg close enough to vertical that hip motion can completely offset the raising of the c.g. that otherwise occurs, due to the rising hip joint, as the leg moves to vertical.) But perfection being elusive, most or, I believe, all walkers have some vertical oscillation of the c.g.

For such an imperfect walker, lifting allows the leg of the advancing foot at heel contact to be more nearly vertical with the same stride length, reducing the vertical motion of the c.g. This reduction in vertical motion only requires the walker to not raise the c.g. higher when lifting than when maintaining contact. For a walker obeying the straight knee rule, the c.g. may be raised only by extending the ankle earlier than when walking legally. This seems unlikely to occur in competition, because both the heel leaving the ground early and the bounding stride that resulted would be obvious tipoffs to the judges. (A more powerful ankle extension timed normally does raise the trajectory of the c.g., but it raises an already downward trajectory back toward horizontal.) Because lifting racewalkers must rarely do those things that would make it obvious, their c.g. trajectories are similar to those of legal walking. I conclude that lifting is advantageous in this sense of "least action."

One ramification of this is quite interesting. The smoothness that we associate with good racewalking is further improved when a good racewalker is lifting!

With regard to the effectiveness of higher heels in discouraging lifting, it may work as Bowman indicates, but perhaps walkers would adjust their toe off and hip motion so as to leave the situation little different from present.

During last winter's discussion of the great contact issue, much moaning appeared about the miserable stature of and lack of respect for racewalking compared to other events. I have two suggestions that might slowly improve this situation: Try to get more information about racewalking in front of track and field coaches. I think it has been years since Track Technique last published an article on racewalking. Also, I do not know if anything about racewalking has been placed in the USATF level 1 coaching school cirriculum, as Elaine Ward suggested in January, 1993. If not, this is an area racewalk coaches might address. My second suggestion is for racewalkers to step into more road runs. A sub-hour 10 km will impress nearby runners that racewalkers are really athletes (and keep you in front of the back of most fields), and you even find people who are interested in learning something about racewalking. (And they rarely believe you when you try to tell them how far ahead the really good walkers would

Have a fit and prosperous New Year!

Martin T. Smith

Martin T. Smith

LOOKING BACK

25 Years Ago (From the December 1968 ORW)--Chuck Newell, unheard of in 6 months, came striding out of limbo to win the annual New Year's Eve handicap race, held this time on a road loop at Worthington H.S. over 6 miles 536 yards--it was easier to go 4 full laps than to worry about a different finish line, particularly in the dark. Given an 8-minute start from scratch on the cold (8 F), windy (wind-chill well below zero) night, Newell easily held off stalwarts Jack Blackburn and Jack Mortland as he recorded a 55:30. Blackburn took fast time honors by 5 seconds in 49:30, escaping Mortland down the final hill. . .Gerry Willwerth won the National Junior 35 Km title in Columbia, Missouri in 3:36:14. (Junior in thos days meant you had never won a National title--junior or senior--not that you were a

20 Years Ago (From the December 1973 ORW)--In a late season dual with Canada held in Colorado, the U.S. took 1-2 in the 20 and 2-3-4 in the 50 to win the meet. Carl Swift prevailed in the 20 in 1:42:23 with Jim Bean second and Roman Olszewski (Can.) third. Ron Kulik and John Kelly filled out the U.S. side in fourth and seventh. Canadian Pat Farrelly captured the 50 in 4:50:45, followed by Dan O'Connor, just over a minute back, Augle Hirt, and Bob Bowman. . . In results from hither, thither, and yon, we reported that Freddy Flyer won a 10 Km in Hither, Outer Mongolia in 38:24, Chief Bent Knee a 100 yard affair In Thither, Pago Pago with 11.2, and Slip Slider the 3 Km in Yon, Greenland in 11:57. . .Ron Laird and Todd Scully led the U.S. 20 Km list for 1973, Laird with 1:30:27

and three other times under 1:32:30, and Scully with 1:32:23. Jerry Brown, Bill Ranney, and John Knifton were also under 1:36. In the 50, John Knifton was tops with a 4:16:48 and Bill Weigle next with 4:22:27. Floyd Godwin and Bob Kitchen were also under 4:30.

15 Years Ago (From the December 1978 ORW)--In the National 25 Km held in San Antonio in conjunction with the National Convention Neal Pyke blitzed a 1:51:02, leaving Canada's Marcel Jobin better than 5 minutes back. Jim Heiring also broke 2 hours and Tom Dooley just missed. Marco Evoniuk and Bob Henderson rounded out the top six. In San Francisco, Henderson went 30 yards beyond 8 miles in an hour. . . We sadly reported the murder of Olympian Jim Hewson (1956), who was killed while tending a lift bridge in Buffalo. Elliott Denman, a Melbourne teammate of Jim, had written a very poignant column for the Asbury Park Press, which we repeated. . .We also included a couple of articles on training by British National Events Coach Julian Hopkins. The articles had originally appeared in Race Walking Record.

10 Years Ago (From the December 1983 ORW)--In our 13th Annual World Rankings, Josef Pribilinec, Czech., Ernesto Canto, Mex., and Anatoilly Solomin, USSR took the top three spots at 20 Km. The 50 saw Ron Weigel, DDR; Jose Marin, Spain; and Raul Gonzales, Mex. on top. Canada's Guillaume Leblane was 10th In the 20 Women were ranked for the sixth time with Olga Yarutkina, USSR; Siv Gustavsson, Sweden; and Sue Cook leading at 5 Km and Youg Ju Xu, China; Natalia Sharipova, USSR,; and Cook at 10. Top three in the U.S. rankings were: 20 Km--Jim Heiring, Marco Evoniuk, and Dan O'Connor; 50 Km--Evonluk, Heiring, O'Connor; 5 Km--Maryanne Torrellas, Susan Liers-Westerfield, and Sam Miller; and 10 Km--Torrellas, Miller, and Teresa Vaill.

5 Years Ago (From the Dec. 1988 ORW)--Czech Josef Pribilinec, the Olympic winner, led the ORW World 20 Km Rankings, followed by Ronald Weigel (GDR) and Maurizio Damilano (Italy). Leading the women's 10 Km ranakings was Svetlana Karbukina of the USSR. Her countrywomen Yelena Nikolayeva and Natalia Spiridonova were second and third. In the 50, the top three were Vyacheslav Ivanenko, USSR; Welgel; and Hartwig Gauder, GDR. In the U.S. rankings, Gary Morgan, Tim Lewis, and Jim Heiring led the way at 20; Carl Schueler, Marco Evonluk, and Andy Kaestner at 50; and Debbi Lawrence, Maryanee Torrellas, and Teresa Vaill at 10. . . Mexico won the Pan-Am Cup for men and Canada the women's version, held in Argentina in November. In the women's race Canada's Ann Peel won in 46:23 and was supported by Janice McCafafrey (46:45) and Alison Baker (47:17) in fourth and fifth. Mexico's Graciela Mendoza beat Debbi Lawrence for second. Carlos Mercenario (1:24:00) and Martin Bermudez (4:03:20) were easy winners in the men's races in leading Mexico to the Cup. Mercenario was followed by Ernesto Canto, Guillaume Leblanc, and Tim Lewis. The Mexicans swept the 50 with Arturo Bravo and Victor Sanchez in second and third. Paul Wick was the first U.S. finisher in fifth (4:21:36).

35 Years Ago (From The Cincinnati Pust)

THEY ALWAYS SAY a fellow has to be a little wacky to take part in a walking race, but I don't think that's quite fair.

Maybe you could say the same thing about a lot of other guys in sport. How about the distance runner who goes until he's ready to drop; the baseball player who labors all afternoon on a hot baseball diamond; the football player who takes a two-hour bruising and calls it fun, or the boxer who gets knocked stiff. Maybe they're a little wacky, too.

I DROVE OUT along Route 52 to watch the walking race from Neville, O., to the Cincinnati Gym grounds Sunday. The distance of the race was 50,000 meters or a little better than 30 miles.

The first three to finish in five hours and 10 minutes, or less, were to be eligible to compete in the Olympic games at London this summer.

It was a weird affair all right, but before it was over I saw one of the most determined and courageous efforts ever made by anyone in any sport.

THE PERFORMER was Bill Mihalo, a rather frail looking veteran of the last war from Detroit, who'd been training a whole year to get one of those three Olympic places. He was the pre-race favorite.

Bill didn't win the race. He fought his way to the finish line in what appeared to be a dead heat with John Deni for third place. Then he collapsed completely exhausted on the muddy Gym grounds track and was told he'd been disqualified.

Maybe I'm wacky, too, but I felt sorry for Bill.

THEY PICKED the guy up and tried to stand him on his feet so they could walk him around and cool him out. But his legs buckled and sagged and his head bobbed from side to side.

"I got hit by a car," he mumbled.

Race officials verified this. They said it happened soon after the start. A car swerved and brushed Bill and knocked him down.

But with perhaps 25 miles to go he picked himself up and walked on.

AT THE HALFWAY mark Bill and Deni were falking together in the lead. At Coney Island Deni had dropped back and Bill was out in front, alone.

With only four miles to go the hot sun and muggy air made him sick. His stomach began doing flip-flops. Far behind him other entrants were dropping out for the same reason. But Bill gritted his teeth and drove blindly on.

At the Kellogg avenue bridge over the little Miami River Ernie Crosbie of Baltimore, member of the U. S. Olympic i muddy heap on the ground.

team in 1936, moved up and passed Bill.

Bill tried to match Crosbie's pace, but had to give ground. A man with less fighting heart would have gone down in a heap right there, but Bil

wouldn't quit.

AT THE GYM GROUNDS Sub Linehan, the National Walking Committee chairman in charge of the race, gathered with other officials at the finish line. They stretched a string between two posts and waited.

The route to the finish led down Watson street to the river bank around a sharp turn into the grounds and then down along one stretch side of a run ning track that was covered with flood mud and newl; sprouted weeds.

OROSBIE SHOWED up first He looked reasonably fresh a: he broke the tape. He took his victory matter-of - factly, with out even a smile.

He merely reached for a bottle of coke, slipped on a jacket an walked away from the smail

group of spectators.

Two or three minutes late: three more walkers came arounthe turn. In front was Adolph Weinecker, 19-year-old Michigar State College darkhorse. In th late stuges of the race Weinecke: had sneaked into second place It was now a battle betwee: Mihalo and Deni for third anthat trip to London.

WITH WEINECKER thre strides in the lead, the thre battled through the last 10 yards for the race.

Mihalo was groggy and star gering. Straining every muscli his face painfully distorted, h tried to gain those few ster that would give him third placand the thing for which he'been working so long.

In desperation he broke hi stride and began to run. Pullin up even with Deni he agai went into a walk. He stayethere for the last few painfi yards. As they hit the finish lin he reached out and clutched a something that wasn't ther-

And as he reached he fell in

NOBODY CHEERED and nobody seemed greatly excited. Thrace judges went methodically about their work of calculating th time for each of the first three. They found all were under fivhours and 10 minutes.

Crosbie first, Weinecker second, Deni third. Mihalo disqualifie-

for running.

I never thought I'd ever get worked up about a walking race but this thing sort of got me. In a way it was gruesome.



'It fits! You're the maiden who did the 3,000-meter racewalk with me at the Royal Track and Field Day.'